Appl. No. 10/682,330
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PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1.   (Previously Presented) A method for partitioning, comprising:

receiving a data access request, said data access request includes one or more variables in a first format;

determining one or more data stores of a plurality of data stores to service said data access request, said step of determining includes accessing one or more mappings of said one or more variables to said plurality of data stores and using said mappings to evaluate partition expressions for said data stores wherein said plurality of data stores comprises at least one relational database and at least one Lightweight Directory Access Protocol (LDAP) directory; and

sending information for said data access request to said one or more data stores determined to service said data access request.

2.   (Previously Presented) A method according to claim 1, wherein:

said data access request includes a search operation.

3.   (Original) A method according to claim 1, wherein:

said data access request includes adding new data to a data store.

4.   (Currently Amended) A method according to claim 1, wherein:

said data access request includes accessing data in ~~multiple data stores~~ both the relational database and the LDAP directory.

5.   (Original) A method according to claim 1, wherein:

said data access request includes accessing data in only one data store.

6.   (Canceled)

7.   (Previously Presented) A method according to claim 1, wherein:

said plurality of data stores includes at least two relational databases.

8.   (Canceled)

9.   (Previously Presented) A method according to claim 1, wherein:

said step of sending includes translating said data access request to a format

suitable for said relational database and communicating said translated data access request to

said relational database.

10.   (Original) A method according to claim 9, further comprising:

receiving a result from said relational database.

11.   (Original) A method according to claim 9, further comprising:

receiving a result from said relational database; and

translating said result to said logical object class format.

12.   (Original) A method according to claim 1, wherein:

said access request is from an Identity System.

13.   (Original) A method according to claim 1, wherein:

said access request is from an Identity and Access System.

14.   (Previously Presented) A method according to claim 1, wherein:

said plurality of data stores store identity information.

15.   (Original) A method according to claim 1, wherein:

said partition expressions are in LDAP filter format.

16.   (Original) A method according to claim 1, wherein:

said first format is a logical object class format that is compatible with LDAP

filter format.

17.   (Previously Presented) A method according to claim 1, wherein:

said step of sending includes creating a custom filter for said data access request

that is customized for said relational database to only include one or more variables mapped to

said relational database.

18.   (Original) A method according to claim 1, wherein:

said data access request includes a filter;

said filter includes said one or more variables; and

said using of said mappings to evaluate partition expressions for said data stores

includes determining whether said filter overlaps with said partition expressions based on said

mappings.

19.   (Original) A method according to claim 18, wherein determining whether

said filter overlaps with said partition expressions based on said mappings comprises:

determining whether child sub-filters of said filter expression overlap with said

partition expressions and combining results of said determination of whether child sub-filters

overlap to determine whether said filter expression overlaps with said partition expressions, if

said filter expression is a composite expression.

20.   (Original) A method according to claim 18, wherein determining whether

said filter overlaps with said partition expressions based on said mappings comprises:

performing a partition compare function using said filter expression and a first

partition expression to determine whether said filter expression overlaps with said first partition expression, if said filter expression and said first partition expression are both simple expressions; and

performing said partition compare function by treating said filter expression as an input partition expression and treating said first partition expression as an input filter expression in order to determine whether said filter expression overlaps said first partition expression, if said first partition expression is a composite expression.

21.   (Previously Presented) One or more processor readable storage devices having processor readable code embodied on said processor readable storage devices, said processor readable code for programming one or more processors to perform a method comprising:

receiving a data access request, said data access request includes one or more variables in a first format;

determining one or more data stores of a plurality of data stores to service said data access request, said step of determining includes accessing one or more mappings of said one or more variables to said plurality of data stores and using said mappings to evaluate partition expressions for said data stores wherein said plurality of data stores comprises at least one relational database and at least one Lightweight Directory Access Protocol (LDAP) directory; and

sending information for said data access request to said one or more data stores determined to service said data access request.

22.   (Previously Presented) One or more processor readable storage devices according to claim 21, wherein:

said step of sending includes translating said data access request to a format suitable for said relational database based on said mappings and communicating said translated data access request to said relational database.

23.   (Original) One or more processor readable storage devices according to claim 21, wherein:

said partition expressions are in LDAP filter format.

24.   (Original) One or more processor readable storage devices according to claim 21, wherein determining whether said filter overlaps with said partition expressions based on said mappings comprises:

performing a partition compare function using said filter expression and a first partition expression to determine whether said filter expression overlaps with said first partition expression, if said filter expression and said first partition expression are both simple expressions; and

performing said partition compare function by treating said filter expression as an input partition expression and treating said first partition expression as an input filter expression in order to determine whether said filter expression overlaps said first partition expression, if said first partition expression is a composite expression.

25.   (Currently Amended) An apparatus that can partition, comprising:

one or more storage devices; and

one or more processors in communication with said one or more storage devices, said one or more processors perform a method comprising:

accessing a data[[.]] access request, said data access request includes one or more variables in logical object class format,

determining one or more data stores of a plurality of data stores to service said data access request, said step of determining includes accessing one or more mappings of said one or more variables to said plurality of data stores and using said mappings to evaluate partition expressions for said data stores wherein said plurality of data stores comprises at least one relational database and at least one Lightweight Directory Access Protocol (LDAP) directory, and

sending information for said data access request to said one or more data stores determined to service said data access request.

26.   (Previously Presented) An apparatus according to claim 25, wherein:

said step of sending includes translating said data access request to a format suitable for said relational database and communicating said translated data access request to said relational database.

27.   (Original) An apparatus according to claim 25, wherein determining whether said filter overlaps with said partition expressions based on said mappings comprises:

performing a partition compare function using said filter expression and a first partition expression to determine whether said filter expression overlaps with said first partition expression, if said filter expression and said first partition expression are both simple expressions; and

performing said partition compare function by treating said filter expression as an input partition expression and treating said first partition expression as an input filter expression in order to determine whether said filter expression overlaps said first partition expression, if said first partition expression is a composite expression.

28.   (Previously Presented) An apparatus that can partition a data access request, said data access request includes one or more variables in a first format, comprising:

means for determining one or more data stores of a plurality of data stores to service said data access request, said step of determining includes accessing one or more mappings of said one or more variables to said plurality of data stores and using said mappings to evaluate partition expressions for said data stores wherein said plurality of data stores comprises at least one relational database and at least one Lightweight Directory Access Protocol (LDAP) directory; and

means for sending said data access request to said one or more data stores determined to service said data access request.

29.   (Currently Amended) A method for partitioning, comprising:

receiving a filter expression for a data access request;

determining whether said filter expression overlaps with one or more partition expressions if said filter expression is a simple expression;

determining whether child sub-filters of said filter expression overlap with said one or more partition expressions and combining results of said determination of whether child sub-filters overlap to determine whether said filter expression overlaps with said one or more partition expressions, if said filter expression is a composite expression; and

providing information for said filter expression to a plurality of data stores associated with one or more partition expressions that overlap with said filter expression wherein said plurality of data stores comprises at least one relational database and at least one Lightweight Directory Access Protocol (LDAP) directory.

30.   (Previously Presented) A method according to claim 29, wherein:

said step of providing includes translating said data access request to a format suitable for said relational database and communicating said translated data access request to said relational database.

31.   (Original) A method according to claim 30, further comprising:

receiving a result from said relational database.

32.   (Original) A method according to claim 30, further comprising:

receiving a result from said relational database; and

translating said result to a logical object class format, said data access request is in said logical class format.

33.   (Original) The method according to claim 29, wherein:

said access request is from an Identity System.

34.   (Original) The method according to claim 29, wherein:

said access request is from an Identity and Access System.

35.   (Previously Presented) A method according to claim 29, wherein:

said plurality of data stores store identity information.

36.   (Previously Presented) A method according to claim 29, wherein said combining results comprises:

determining that said filter expression overlaps with a first partition expression if all child sub-filters overlap with said first partition expression and said child sub-filters form said filter expression based on an AND operator; and

determining that said filter expression overlaps with a first partition expression if any of said child sub-filters overlap with said first partition expression and said child sub-filters form said filter expression based on an OR operator.

37.   (Original) A method according to claim 29, wherein said step of providing comprises:

removing terms not supported by a first data source from said information for said filter expression provided to said first data source.

38.   (Previously Presented) One or more processor readable storage devices having processor readable code embodied on said processor readable storage devices, said processor readable code for programming one or more processors to perform a method for partitioning comprising:

receiving a filter expression for a data access request;

determining whether said filter expression overlaps with one or more partition expressions if said filter expression is a simple expression;

determining whether child sub-filters of said filter expression overlap with said one or more partition expressions and combining results of said determination of whether child

sub-filters overlap to determine whether said filter expression overlaps with said one or more

partition expressions, if said filter expression is a composite expression; and

providing information for said filter expression to a plurality of data stores

associated with one or more partition expressions that overlap with said filter expression wherein

said plurality of data stores comprises at least one relational database and at least one

Lightweight Directory Access Protocol (LDAP) directory.

39.   (Previously Presented) One or more processor readable storage devices

according to claim 38, wherein:

said step of providing includes translating said data access request to a format

suitable for said relational database and communicating said translated data access request to

said relational database.

40.   (Previously Presented) One or more processor readable storage devices

according to claim 38, wherein said combining results comprises:

determining that said filter expression overlaps with a first partition expression if

all child sub-filters overlap with said first partition expression and said child sub-filters form said

filter expression based on an AND operator; and

determining that said filter expression overlaps with a first partition expression if

any of said child sub-filters overlap with said first partition expression and said child sub-filters

form said filter expression based on an OR operator.

41.   (Original) One or more processor readable storage devices according to

claim 38, wherein said step of providing comprises:

removing terms not supported by a first data source from said information for said

filter expression provided to said first data source.

42.   (Previously Presented) A method for partitioning, comprising:

receiving a filter expression for a data access request;

accessing a partition expression for a first data store of a plurality of data stores wherein said plurality of data stores comprises at least one relational database and at least one Lightweight Directory Access Protocol (LDAP) directory;

performing a partition compare function using said filter expression and said partition expression to determine whether said filter expression overlaps with said partition expression, if said filter expression and said partition expression are both simple expressions;

performing said partition compare function by treating said filter expression as an input partition expression and treating said partition expression as an input filter expression in order to determine whether said filter expression overlaps said partition expression, if said partition expression is a composite expression; and

providing information for said filter expression to said first data source if said filter expression overlaps with said filter expression.

43.   (Original) method according to claim 42, further comprising:

performing said partition compare function for each child sub-filter of said filter expression and combining results of said step of performing said partition compare function for each child sub-filter to determine whether said filter expression overlaps with said partition expression, if said filter expression is a composite expression.

44.   (Previously Presented) A method according to claim 42, wherein:

said step of providing includes translating said data access request to a format suitable for said relational database and communicating said translated data access request to said relational database.

45.   (Original) A method according to claim 42, further comprising:

receiving a result from said relational database.

46.   (Original) A method according to claim 42, wherein said step of providing comprises:

removing terms not supported by a first data source from said information for said

filter expression provided to said first data source.